

Frequently Asked Questions (FAQs)

COVID-19's Effect on the 1st Quarter 2020 Retail E-commerce Sales Report

Data Collection

Did the Census Bureau change its data collection procedures this quarter?

Yes. The Quarterly Retail E-commerce Report is compiled from data collected on the Monthly Retail Trade (Survey). The Census Bureau utilizes a wide variety of collection methods for the MRTS. Data, particularly from businesses, are collected on paper, online, fax, and through telephone interviews. Our National Processing Center (NPC) is responsible for mailing, faxing, data capture, responding to email messages, and handling inbound/outbound calls. Services offered by NPC have been limited to ensure employee safety during the quarter. As a result, data collection occurred primarily via email requests and online reporting. Companies that have not responded may be contacted via an automated phone tree operation or by an analyst from our headquarters.

How has the collection of Monthly Retail Trade Survey data been affected?

Many businesses are operating in a limited capacity or have ceased operations completely. As a result, their ability to provide accurate, timely information to Census may be limited.

For the 1st Quarter 2020 Retail E-commerce Sales Report, processing and data quality were monitored throughout the quarter and quality metrics, including response rates, fell within normal ranges for this survey.

Methodology

Were any estimates withheld or delayed because of data collection problems?

No. All estimates were released as scheduled.

Did the Census Bureau modify its usual weighting or estimation methods used to produce monthly retail estimates for the 1st Quarter 2020?

No. Standard weighted and estimation methods were used to produce all indicator estimates for 1st Quarter 2020.

Has the reliability of the monthly retail estimates changed?

No. The reliability of the retail estimates as measured by the coefficient of variation for monthly totals and the standard error for quarter-to-quarter change has not changed substantially. For the published industries, reported data for 1st Quarter 2020 exhibited variation similar to that for prior months.

Seasonal Adjustment

Did the Census Bureau alter the procedures for developing quarterly seasonally adjusted estimates for retail data?

Yes. For the quarterly seasonal adjusted sales estimates, the MRTS seasonally adjusted estimates for each month are summed to create the quarterly sales estimates. Therefore any adjustment made to the monthly estimates contribute to the 1st quarter 2020 sales estimates as well. During MRTS processing an alteration was made in an option in the Census Bureau's X-13ARIMA-SEATS seasonal adjustment software (the "additive outlier adjustment" option) during the processing for the March 2020 sales estimate for some kinds of business. This was done in effort to ensure that the published seasonally adjusted values fully include any immediate effects. These effects are not typical March effects and so should not be permitted to influence the seasonal factors for the March 2020 sales estimate and surrounding month. The altered option was applied to each kind of business whose March unadjusted value was found to be statistically untypical, as indicated by the appropriate t-statistic having a magnitude larger than a commonly used "critical value", and for which there were independent indications of an impact. Such indications confirm that a March 2020 survey value has an unusual potential to be untypical and justify the use of a standard critical value. In a usual month, every survey value is "blindly" tested, therefore a higher critical value is used, making it more difficult for the survey value to be classified as untypical.

For the quarterly seasonally adjusted e-commerce estimates, seasonal adjustment is performed on the quarterly e-commerce estimates, rather than on each month individually. For 1st quarter 2020, the same altered option was applied to quarterly ecommerce levels whose 1st quarter unadjusted value was found to be statistically untypical, as indicated by the appropriate t-statistic having a magnitude larger than a commonly used "critical value", and for which there were independent indications of an impact. In general, the 1st quarter 2020 e-commerce estimates did not appear statistically untypical when using the altered option.

How was the survey value for a kind of business determined to be out of the ordinary?

Each month/quarter, independent indications of how each kind of business performed are researched as part of our normal review of the estimates to detect reporting errors. This research includes, but is not restricted to, conversations with companies in our survey, a review of publicly available press releases from both companies and industry associations, and a review of other economic indicators.

For retail estimates (both monthly sales and quarterly e-commerce, the value was considered to be out of the ordinary if it was found to be statistically untypical (as indicated by the appropriate t-statistic having a magnitude larger than a "standard" critical value) and independent sources indicated an impact.

Additional Information

Are there additional Census Bureau resources available on the COVID-19 Pandemic?

Yes. The Census Bureau has created a [COVID-19 reference page](#) which includes links to relevant Census data sources. There is also a more general [FAQ on the impact of COVID-19 on operations](#).

Source: U. S. Census Bureau
Economic Indicators Division

Last Revised: May 19, 2020